From the

INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:
JEAN M. LOCKYER
TOWNSEND AND TOWNSEND AND CREW LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111

### PCT

NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

016325-014000PC

Date of Mailing (day/month/year)

0.5 OCT 2004

Applicant's or agent's file reference

16325-140PC

International filing date (day/month/year)

IMPORTANT NOTIFICATIONPriority date (day/month/year)

PCT/US03/17825

International application No.

04 June 2003 (04.06.2003)

04 June 2002 (04.06.2002)

Applicant

METABOLEX, INC. /

- 1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
- 2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
- 3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

#### 4. REMINDER

12/4/04

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US

Mail Stop PCT, Atm: IPEA/US

Commissioner for Patents

P.O. Box 1450 Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Form PCT/IPEA/416 (July 1992)

Authorized officer

Bradley L. Sisson

Telephone No. (703) 308-0196

ton

UNDOCKETED BY 20

# **PCT**

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)		
International application No.	International filing date (day/mor			
PCT/US03/17825	04 June 2003 (04.06.2003)	04 June 2002 (04.06.2002)		
International Patent Classification (IPC)		(0.100.2002)		
IPC(7): G01N 33/566; A01N 38/18 and	US Cl.: 436/501; 435/455; 514/2			
Applicant				
METABOLEX, INC.				
Examining Authority and i	is transmitted to the applicant a	-		
2. This REPORT consists of a total of <u>S</u> sheets, including this cover sheet.				
This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).				
These annexes consist of a	total of <u>b</u> sheets.			
3. This report contains indica	tions relating to the following i	tems:		
I Basis of the report				
II Priority				
		elty, inventive step and industrial applicability		
IV Lack of unity of	invention			
V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement				
VI Certain documen	nts cited			
VII Certain defects in the international application				
VIII Certain observat	ions on the international applica	ation		
	7			
Date of submission of the demand	Date of	of completion of this report		
05 January 2004 (05.01.2004)		otember 2004 (20.09.2004)		
Name and mailing address of the IPEA/US  Mail Stop PCT, Attn: IPEA/US		rized officer		
Commissioner for Patents P.O. Box 1450	Bradle	ey L. Sisson Januar Ford		
Alexandria, Virginia 22313-1450		ione No. (703) 308-0196		
Facsimile No. (703) 305-3230 Form PCT/IPEA/409 (cover sheet)(July 19				

## INTERNATIONAL PRESENTATION REPORT

Internation	ication No.	
PCT/US03/17	525	

I.	Bas	is of the report
1.	. With	regard to the elements of the international application:*
	$\boxtimes$	the international application as originally filed.
	$\boxtimes$	the description:
		pages 1-127 and 134-137 as originally filed
		pages 128-133, filed with the demand
		pages NONE, filed with the letter of
	$\boxtimes$	the claims:
		pages 138-140, as originally filed, as amended (together with any statement) under Article 19
		pages NONE , as amended (together with any statement) under Article 19 pages NONE , filed with the demand
		pages NONE , filed with the letter of
		the drawings:
		pages NONE , as originally filed
		pages NONE , filed with the demand
		pages NONE, filed with the letter of
	M	the sequence listing part of the description:
		pages 1-161 , as originally filed
		pages NONE , filed with the demand pages NONE , filed with the letter of
2.	With	a regard to the language, all the elements marked above were available or furnished to this Authority in the
	langu	lage in which the international application was filed, unless otherwise indicated under this item.
	Thes	e elements were available or furnished to this Authority in the following language which is:
		the language of a translation furnished for the purposes of international search (under Rule23.1(b)).
		the language of publication of the international application (under Rule 48.3(b)).
		the language of the translation furnished for the purposes of international preliminary examination(under Rules
		33.2 and/or 33.3).
3.	With	regard to any nucleotide and/or amino acid sequence disclosed in the international application, the
	IIIGIII	national preliminary examination was carried out on the basis of the sequence listing:
		contained in the international application in printed form.
		filed together with the international application in computer readable form.
		furnished subsequently to this Authority in written form.
	1 1	furnished subsequently to this Authority in computer readable form.
		The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the
		international application as filed has been furnished.
		The statement that the information recorded in computer readable form is identical to the written sequence listing
		has been furnished.
4.		The amendments have resulted in the cancellation of:
	1	the description, pages NONE
	,	the claims, Nos. NONE
	_ '	the drawings, sheets/fig NONE
5.		This report has been established as if (some of) the amendments had not been made, since they have been considered to go
		beyond the discrosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**
* h this	Replace	ement sheets which have been furnished to the receiving Office in response to an invitation under Arials 14 and a final to
		t as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).  placement sheet containing such amendments must be referred to under item I and annexed to this report.
		y was a state work and an accept to may report.
	2000	



Internationa ation No.	
PCT/US03/17825	

	on-establishment of opinion with regard to novelty, inventive step and industrial applicability	
1. The question whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been and will not be examined in respect of:		
$\boxtimes$	the entire international application,	
	claims Nos	
becau	ase:	
	the said international application, or the said claim Nos relate to the following subject matter which does not require international preliminary examination (specify):	
	the description, claims or drawings (indicate particular elements below) or said claims Nos are so unclear that no meaningful opinion could be formed (specify):	
	the claims, or said claims Nos are so inadequately supported by the description that no meaningful opinion could be formed.	
	no international search report has been established for said claims Nos. 1-24	
2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid		
	the written form has not been furnished or does not comply with the standard.	
$\boxtimes$	the computer readable form has not been furnished or does not comply with the standard.	
orm PCT	/IDEA /400 /Pox HIV (July, 1009)	

Form PCT/IPEA/409 (Box III) (July 1998)

## **IPEAUS**

PC7/050B/1025.05012004



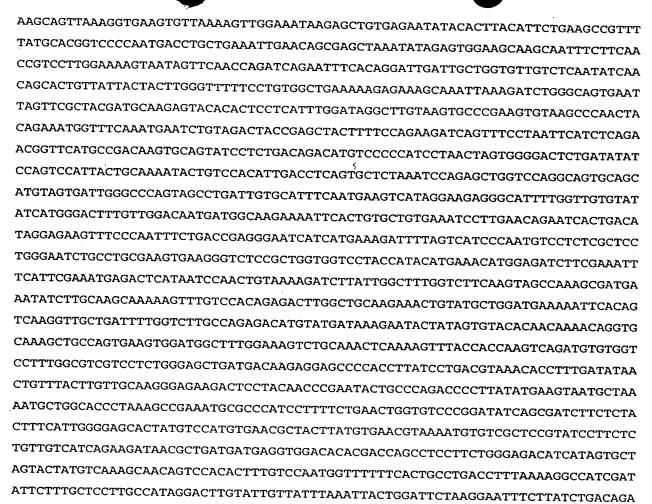
gi|187558|gb|J02958.1|

CDS:195..4421

GAATTCCGCCCTCGCCGCGCGCGCCCCGAGCGCTTTGTGAGCAGATGCGGAGCCGAGTGGAGGGCGCGAGCC ACTTCTCCACTGGTTCCTGGGCACCGAAAGATAAACCTCTCATAATGAAGGCCCCCGCTGTGCTTGCACCTGGCA TCCTCGTGCTCCTGTTTACCTTGGTGCAGAGGAGCAATGGGGAGTGTAAAGAGGCACTAGCAAAGTCCGAGATGA ATGTGAATATGAAGTATCAGCTTCCCAACTTCACCGCGGAAACACCCCATCCAGAATGTCATTCTACATGAGCATC ACATTTTCCTTGGTGCCACTAACTACATTTATGTTTTAAATGAGGAAGACCTTCAGAAGGTTGCTGAGTACAAGA CTGGGCCTGTGCTGGAACACCCAGATTGTTTCCCATGTCAGGACTGCAGCAAAGCCAATTTATCAGGAGGTG TTTGGAAAGATAACATCAACATGGCTCTAGTTGTCGACACCTACTATGATGATCAACTCATTAGCTGTGGCAGCG TCAACAGAGGGACCTGCCAGCGACATGTCTTTCCCCACAATCATACTGCTGACATACAGTCGGAGGTTCACTGCA TATTCTCCCCACAGATAGAAGAGCCCAGCCAGTGTCCTGACTGTGTGGTGAGCGCCCTGGGAGCCAAAGTCCTTT CATCTGTAAAGGACCGGTTCATCAACTTCTTTGTAGGCAATACCATAAATTCTTCTTATTTCCCAGATCATCCAT TGCATTCGATATCAGTGAGAAGGCTAAAGGAAACGAAAGATGGTTTTATGTTTTTTGACGGACCAGTCCTACATTG TCTTGACGGTCCAAAGGGAAACTCTAGATGCTCAGACTTTTCACACAAGAATAATCAGGTTCTGTTCCATAAACT AGGAAGTGTTTAATATACTTCAGGCTGCGTATGTCAGCAAGCCTGGGGCCCAGCTTGCTAGACAAATAGGAGCCA CCATGTGTGCATTCCCTATCAAATATGTCAACGACTTCTTCAACAAGATCGTCAACAAAAACAATGTGAGATGTC TCCAGCATTTTTACGGACCCAATCATGAGCACTGCTTTAATAGGACACTTCTGAGAAATTCATCAGGCTGTGAAG CGCGCCGTGATGAATATCGAACAGAGTTTACCACAGCTTTGCAGCGCGTTGACTTATTCATGGGTCAATTCAGCG AAGTCCTCTTAACATCTATATCCACCTTCATTAAAGGAGACCTCACCATAGCTAATCTTGGGACATCAGAGGGTC GCTTCATGCAGGTTGTGGTTTCTCGATCAGGACCATCAACCCCTCATGTGAATTTTCTCCTGGACTCCCATCCAG TGTCTCCAGAAGTGATTGTGGAGCATACATTAAACCAAAATGGCTACACACTGGTTATCACTGGGAAGAAGATCA CGAAGATCCCATTGAATGGCTTGGGCTGCAGACATTTCCAGTCCTGCAGTCAATGCCTCTCTGCCCCACCCTTTG TTCAGTGTGGCTGGTGCCACGACAAATGTGTGCGATCGGAGGAATGCCTGAGCGGGACATGGACTCAACAGATCT GTCTGCCTGCAATCTACAAGGTTTTCCCAAATAGTGCACCCCTTGAAGGAGGACAAGGCTGACCATATGTGGCT GGGACTTTGGATTTCGGAGGAATAATAAATTTGATTTAAAGAAAACTAGAGTTCTCCTTGGAAATGAGAGCTGCA CCTTGACTTTAAGTGAGAGCACGATGAATACATTGAAATGCACAGTTGGTCCTGCCATGAATAAGCATTTCAATA TGTCCATAATTATTTCAAATGGCCACGGGACAACACAATACAGTACATTCTCCTATGTGGATCCTGTAATAACAA ATTCTAGACACATTTCAATTGGTGGAAAAACATGTACTTTAAAAAAGTGTGTCAAACAGTATTCTTGAATGTTATA CCCCAGCCCAAACCATTTCAACTGAGTTTGCTGTTAAATTGAAAATTGACTTAGCCAACCGAGAGACAAGCATCT CTCTCAACATTGTCAGTTTTCTATTTTGCCTTTGCCAGTGGTGGGAGCACAATAACAGGTGTTGGGAAAAACCTGA GCTCTAATTCAGAGATAATCTGTTGTACCACTCCTTCCCTGCAACAGCTGAATCTGCAACTCCCCCTGAAAACCA AAGCCTTTTTCATGTTAGATGGGATCCTTTCCAAATACTTTGATCTCATTTATGTACATAATCCTGTGTTTAAGC CTTTTGAAAAGCCAGTGATGATCTCAATGGGCAATGAAAATGTACTGGAAATTAAGGGAAATGATATTGACCCTG

# **IPEAUS**

PCT/USDB/ # 285.05012004



## SEQ ID NO:104 Human TRP-MET polypeptide sequence

GCATCAGAACCAGAGGCTTGGTCCCACAGGCCAGGGACCAATGCGCTGCAG

gi|307196|gb|AAA59591.11

MKAPAVLAPGILVLLFTLVQRSNGECKEALAKSEMNVNMKYQLPNFTAETPIQNVILHEHHIFLGATNYIYVLNE
EDLQKVAEYKTGPVLEHPDCFPCQDCSSKANLSGGVWKDNINMALVVDTYYDDQLISCGSVNRGTCQRHVFPHNH
TADIQSEVHCIFSPQIEEPSQCPDCVVSALGAKVLSSVKDRFINFFVGNTINSSYFPDHPLHSISVRRLKETKDG
FMFLTDQSYIDVLPEFRDSYPIKYVHAFESNNFIYFLTVQRETLDAQTFHTRIIRFCSINSGLHSYMEMPLECIL
TEKRKKRSTKKEVFNILQAAYVSKPGAQLARQIGASLNDDILFGVFAQSKPDSAEPMDRSAMCAFPIKYVNDFFN
KIVNKNNVRCLQHFYGPNHEHCFNRTLLRNSSGCEARRDEYRTEFTTALQRVDLFMGQFSEVLLTSISTFIKGDL
TIANLGTSEGRFMQVVVSRSGPSTPHVNFLLDSHPVSPEVIVEHTLNQNGYTLVITGKKITKIPLNGLGCRHFQS
CSQCLSAPPFVQCGWCHDKCVRSEECLSGTWTQQICLPAIYKVFPNSAPLEGGTRLTICGWDFGFRRNNKFDLKK
TRVLLGNESCTLTLSESTMNTLKCTVGPAMNKHFNMSIIISNGHGTTQYSTFSYVDPVITSISPKYGPMAGGTLL
TLTGNYLNSGNSRHISIGGKTCTLKSVSNSILECYTPAQTISTEFAVKLKIDLANRETSIFSYREDPIVYEIHPT
KSFISTWWKEPLNIVSFLFCFASGGSTITGVGKNLNSVSVPRMVINVHEAGRNFTVACQHRSNSEIICCTTPSLQ
QLNLQLPLKTKAFFMLDGILSKYFDLIYVHNPVFKPFEKPVMISMGNENVLEIKGNDIDPEAVKGEVLKVGNKSC
ENIHLHSEAVLCTVPNDLLKLNSELNIEWKQAISSTVLGKVIVQPDQNFTGLIAGVVSISTALLLLLLGFFLWLKK

#### ILEMOS

# PET/USCS/105012004



RKQIKDLGSELVRYDARVHTPHLDRLVSARSVSPTTEMVSNESVDYRATFPEDQFPNSSQNGSCRQVQYPLTDMS
PILTSGDSDISSPLLQNTVHIDLSALNPELVQAVQHVVIGPSSLIVHFNEVIGRGHFGCVYHGTLLDNDGKKIHC
AVKSLNRITDIGEVSQFLTEGIIMKDFSHPNVLSLLGICLRSEGSPLVVLPYMKHGDLRNFIRNETHNPTVKDLI
GFGLQVAKAMKYLASKKFVHRDLAARNCMLDEKFTVKVADFGLARDMYDKEYYSVHNKTGAKLPVKWMALESLQT
QKFTTKSDVWSFGVVLWELMTRGAPPYPDVNTFDITVYLLQGRRLLQPEYCPDPLYEVMLKCWHPKAEMRPSFSE
LVSRISAIFSTFIGEHYVHVNATYVNVKCVAPYPSLLSSEDNADDEVDTRPASFWETS

### SEQ ID NO:105 Mouse TRP-MET nucleic acid sequence

gi|6678867|ref|NM\_008591.1|

CDS:1..4140

ATGAAGGCTCCCACCGTGCTGCACCTGGCATTCTGGTGCTGCTGTTGTCCTTGGTGCAGAGGAGCCATGGGGAG TGCAAGGAGGCCCTAGTGAAGTCTGAGATGAACGTGAACATGAAGTATCAGCTCCCCAACTTCACGGCAGAAACC CCCATCCAGAATGTCGTCCTACACGGCCATCATATTTATCTCGGAGCCACAAACTACATTTATGTTTTAAATGAC  ${\tt AAAGACCTTCAGAAGGTATCCGAATTCAAGACCGGGCCCGTGTTGGAACACCCCAGATTGTTTACCTTGTCGGGACCGGGCCCGTGTTGGAACACCCCAGATTGTTTACCTTGTCGGGACCGGGCCCGTGTTGGAACACCCCAGATTGTTTACCTTGTCGGGACCGGGCCCGTGTTGGAACACCCCAGATTGTTTACCTTGTCGGGACCGGGCCCGTGTTGGAACACCCCAGATTGTTTACCTTGTCGGGACCGGGCCCGTGTTGGAACACCCCAGATTGTTTACCTTGTCGGGACCGGGCCCGTGTTGGAACACCCCAGATTGTTTACCTTGTCGGGACCGGGCCCGTGTTGGAACACCCCAGATTGTTTACCTTGTCGGGACCGGGCCCGTGTTGGAACACCCCAGATTGTTTACCTTGTCGGGACCGGGCCCGTGTTGGAACACCCCAGATTGTTTACCTTGTCGGGACCAGATTGTTTACCTTGTCGGGACCAGATTGTTTACCTTGTCGGGACCAGATTGTTTACCTTGTCGGGACCAGATTGTTTACCTTGTCGGGACCAGATTGTTTACCTTGTCGGGACCAGATTGTTTACCTTGTCGGGACCAGATTGTTTACCTTGTCGGGACCAGATTGTTTACCTTGTCGGGACCAGATTGTTTACCTTGTCGGGACCAGATTGTTTACCTTGTCGGGACCAGATTGTTTACCTTGTCGGGACCAGATTGTTTACCTTGTCGGGACCAGATTGTTTACCTTGTCGGGACCAGATTGTTTACCTTGTCGGGACCAGATTGTTTACCTTGTCGGAACACAGATTGTTTACCTTGTCGGAACACACAGATTGTTTACCTTGTCAGATTGTTTACCTTGTCAGATTGTTTACCTTGTCAGATTGTTTACCTTGTCAGATTGTTTACCTTGTCAGATTGTTTACCTTGTCAGATTGTTTACCTTGTCAGATTGTTTACCTTGTCAGATTGTTTACCTTGTCAGATTGTTTACCTTGTTACCTTGTTACAGATTGTTTACCTTTGTTACAGATTGTTACAGATTGTTACAGATTGTTTACCTTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTGTTACAGATTAGATTACAGATTGTTACAGATTGTTACAGATTGTAGAT$ TGCAGCAGCAAAGCCAATTCATCAGGAGGGGTTTGGAAAGACAACATCAACATGGCTCTGCTTGTTGACACATAC TCTGCTGACATCCAGTCTGAGGTCCACTGCATGTTCTCCCCAGAAGAGGGGGTCAGGGCAGTGTCCTGACTGTGTA  $\tt GTGAGTGCCCTCGGAGGCCAAAGTCCTCCTGTCGGAAAAGGACCGGTTCATCAATTTCTTTGTGGGGAATACGATC$ AATTCCTCCTATCCTCCTGGTTATTCACTGCATTCGATATCGGTGAGACGGCTGAAGGAAACCCAAGATGGTTTT GCCTTCGAAAGCAACCATTTTATTTACTTTCTGACTGTCCAAAAGGAAACTCTAGATGCTCAGACTTTTCATACA AGAATAATCAGGTTCTGTTCCGTAGACTCTGGGTTGCACTCCTACATGGAAATGCCCCTGGAATGCATCCTGACA GAAAAAAGAAGGAAGAGATCCACAAGGGAAGAAGTGTTTAATATCCTCCAAGCCGCGTATGTCAGTAAACCAGGG GATTCTGCTGAACCTGTGAATCGATCAGCAGTCTGTGCATTCCCCCATCAAATATGTCAATGACTTCTTCAACAAG  $\tt CTGCTGAGAAACTCTTCGGGCTGTGAAGCGCGCAGTGACGAGTATCGGACAGAGTTTACCACGGCTTTGCAGCGC$ ATTGCTAATCTAGGGACGTCAGAAGGTCGCTTCATGCAGGTGGTGCTCTCTCGAACAGCACCTCACTCCTCAT ACATTGGTTGTCACAGGAAAGAAGATCACCAAGATTCCATTGAATGGCCTGGGCTGTGGACATTTCCAATCCTGC CCCAGCGGTACATGGACTCAAGAGATCTGTCTGCCAGCGGTTTATAAGGTGTTCCCCACCAGCGCGCCCCTTGAA GGAGGAACAGTGTTGACCATATGTGGCTGGGACTTTGGATTCAGGAAGAATAATAAATTTGATTTAAGGAAAACC AAAGTTCTGCTTGGCAACGAGAGCTGTACCTTGACCTTAAGCGAGAGCACGACAAATACGTTGAAATGCACAGTT GGTCCCGCGATGAGTGAGCACTTCAATGTGTCTGTAATTATCTCAAACAGTCGAGAGACAACACAATACAGTGCA TTCTCCTATGTAGATCCTGTAATAACAAGCATTTCTCCGAGGTACGGCCCTCAGGCTGGAGGCACCTTACTCACT  $\tt CTTACTGGGAAATACCTCAACAGTGGCAATTCTAGACACATTTCAATTGGAGGGAAAACATGTACTTTAAAAAGT$ GTATCAGATAGTATTCTTGAATGCTACACCCCAGCCCAAACTACCTCTGATGAGTTTCCTGTGAAATTGAAGATT TCTTTTATTAGTGGTGGAAGCACAATAACGGGTATTGGGAAGACCCTGAATTCGGTTAGCCTCCCAAAGCTGGTA

## **IPEA/US**

## PCT/USD3%3 725.05012004

ACTACTCCTTCACTGAAACAGCTGGGCCTGCAACTCCCCCTGAAGACCAAAGCCTTCTTCCTGTTAGACGGGATT CTTTCCAAACACTTTGATCTCACTTATGTGCATAATCCTGTGTTTGAGCCTTTTGAAAAGCCAGTAATGATCTCA ATGGGCAATGAAAATGTAGTGGAAATTAAGGGAAACAATATTGACCCTGAAGCAGTTAAAGGTGAAGTGTTAAAA AAACTGAACAGCGAGCTAAATATAGAGTGGAAGCAAGCAGTCTCTTCAACTGTTCTTGGAAAAGTGATCGTTCAA  $\tt TTCCTGTGGATGAGAAGGAAAGCATAAAGATCTGGGCAGTGAATTAGTTCGCTATGACGCAAGAGTACACCT$  ${\tt CCTCATTTGGATAGGCTTGTAAGTGCCGAAGTGTAAGTCCAACTACAGAGATGGTTTCAAATGAGTCTGTAGAC}$ TACAGAGCTACTTTTCCAGAAGACCAGTTTCCCAACTCCTCTCAGAATGGAGCATGCAGACAAGTGCAATATCCT CTGACAGACCTGTCCCCTATCCTGACGAGTGGAGACTCTGATATATCCAGCCCATTACTACAAAATACTGTTCAC ATTGACCTCAGTGCTCTAAATCCAGAGCTGGTCCAAGCAGTTCAGCACGTAGTGATTGGACCCAGCAGCCTGATT  $\tt GTGCATTCAATGAAGTCATAGGAAGAGGGCATTTTGGCTGTGTCTATCATGGGACTTTGCTGGACAATGACGGA$ GGAATCATCATGAAAGACTTCAGCCATCCCAATGTTCTCTCACTCTTGGGAATCTGCCTGAGGAGTGAAGGGTCT CCTCTGGTGGTCCTGCCCTATATGAAGCATGGAGATCTGCGAAATTTCATTCGAAACGAGACTCATAATCCAACT  $\tt GTGAAAGATCTTATAGGATTTGGCCTTCAAGTAGCCAAAGGCATGAAATATCTTGCCAGCAAAAAGTTTGTCCAC$ AGAGACTTAGCTGCAAGAAACTGCATGTTGGATGAAAAATTCACTGTCAAGGTTGCTGATTTCGGTCTTGCCAGA GACATGTACGATAAAGAG'rACTATAGTGTCCACAACAAGACGGGTGCCAAGCTACCAGTAAAGTGGATGGCTTTA GAGAGTCTGCAAACGCAGAAGTTCACCACCAAGTCAGATGTGTGGTCCTTTGGTGTGCTCCTCTGGGAGCTCATG  $\tt CCGTCCTTTTCCGAACTGGTCTCCAGGATATCCTCAATCTTCTCCACGTTCATTGGGGAACACTACGTCCACGTG$ AACGCTACTTATGTGAATGTAAAATGTGTTGCTCCATATCCTTCTCTGTTGCCATCCCAAGACAACATTGATGGC GAGGGGAACACATGA

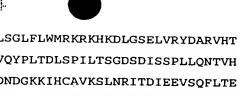
## SEQ ID NO:106 Mouse TRP-MET polypeptide sequence

gi|6678868|ref|NP\_032617.1|

MKAPTVLAPGILVLLLSLVQRSHGECKEALVKSEMNVNMKYQLPNFTAETPIQNVVLHGHHIYLGATNYIYVLND KDLQKVSEFKTGPVLEHPDCLPCRDCSSKANSSGGVWKDNINMALLVDTYYDDQLISCGSVNRGTCQRHVLPPDN SADIQSEVHCMFSPEEESGQCPDCVVSALGAKVLLSEKDRFINFFVGNTINSSYPPGYSLHSISVRRLKETQDGF KFLTDQSYIDVLPEFLDSYPIKYIHAFESNHFIYFLTVQKETLDAQTFHTRIIRFCSVDSGLHSYMEMPLECILT EKRRKRSTREEVFNILQAAYVSKPGANLAKQIGASPSDDILFGVFAQSKPDSAEPVNRSAVCAFPIKYVNDFFNK IVNKNNVRCLQHFYGPNHEHCFNRTLLRNSSGCEARSDEYRTEFTTALQRVDLFMGRLNQVLLTSISTFIKGDLT IANLGTSEGRFMQVVLSRTAHLTPHVNFLLDSHPVSPEVIVEHPSNQNGYTLVVTGKKITKIPLNGLGCGHFQSC SQCLSAPYFIQCGWCHNQCVRFDECPSGTWTQEICLPAVYKVFPTSAPLEGGTVLTICGWDFGFRKNNKFDLRKT KVLLGNESCTLTLSESTTNTLKCTVGPAMSEHFNVSVIISNSRETTQYSAFSYVDPVITSISPRYGPQAGGTLLT LTGKYLNSGNSRHISIGGKTCTLKSVSDSILECYTPAQTTSDEFPVKLKIDLANRETSSFSYREDPVVYEIHPTK SFISGGSTITGIGKTLNSVSLPKLVIDVHEVGVNYTVACQHRSNSEIICCTTPSLKQLGLQLPLKTKAFFLLDGI LSKHFDLTYVHNPVFEPFEKPVMISMGNENVVEIKGNNIDPEAVKGEVLKVGNQSCESLHWHSGAVLCTVPSDLL

## *IPEANI*S

# PCT/USC3/105012004



KLNSELNIEWKQAVSSTVLGKVIVQPDQNFAGLIIGAVSISVVVLLLSGLFLWMRKRKHKDLGSELVRYDARVHT PHLDRLVSARSVSPTTEMVSNESVDYRATFPEDQFPNSSQNGACRQVQYPLTDLSPILTSGDSDISSPLLONTVH IDLSALNPELVQAVQHVVIGPSSLIVHFNEVIGRGHFGCVYHGTLLDNDGKKIHCAVKSLNRITDIEEVSOFLTE GIIMKDFSHPNVLSLLGICLRSEGSPLVVLPYMKHGDLRNFIRNETHNPTVKDLIGFGLQVAKGMKYLASKKFVH RDLAARNCMLDEKFTVKVADFGLARDMYDKEYYSVHNKTGAKLPVKWMALESLQTQKFTTKSDVWSFGVLLWELM TRGAPPYPDVNTFDITIYLLQGRRLLQPEYCPDALYEVMLKCWHPKAEMRPSFSELVSRISSIFSTFIGEHYVHV NATYVNVKCVAPYPSLLPSQDNIDGEGNT

#### SEQ ID NO:107 Rat TRP-MET nucleic acid sequence

gi|13928699|ref|NM 031517.1|

ATGAAGGCTCCCACCGCGCTGGCACCTGGCATTCTGCTGCTGCTGACCTTGGCGCAGAGGAGCCATGGGGAG TGCAAGGAGGCCCTAGTGAAGTCTGAGATGAACGTGAACATGAAGTACCAGCTTCCCAACTTCACCGCAGAAACC  ${\tt CCCATCCAGAATGTCGTCCTCCATGGGCACCATATTTATCTCGGAGCCACAAACTACATTTATGTTTTAAATGAC}$  ${\tt AAAGACCTTCAGAAGGTATCTGAGTTCAAGACCGGGCCCGTGGTGGAACACCCCAGATTGTTTTCCTTGTCAGGAC}$ TGCAGCAGCAAAGCCAATGTGTCAGGAGGTGTTTGGAAAGACAACGTCAACATGGCGCTGCTTGTTGACACTTAC GCTGCCGACATTCAGTCCGAGGTTCACTGCATGTTCTCCCCACTTGCGGAGGAAGAGTCAGGCCAGTGTCCCGAC TGTGTAGTGAGTGCCCTGGGAGCCAAAGTCCTCCTGTCTGAAAAGGACCGGTTCATCAATTTCTTCGTGGGGAAT ACGATAAACTCTTCCTACCCTCCCGATTATTCATTGCATTCAATATCGGTGAGGCGGCTGAAGGAAACCCAGGAC GGTTTTAAGTTTTTGACAGACCAGTCCTACATTGATGTCCTGGGAGAATTCCGAGATTCCTACCCCATCAAGTAC ATACATGCCTTCGAAAGCAACCATTTTATCTACTTTCTGACTGTCCAGAAGGAAACCCTAGATGCTCAGACTTTC CATACAAGAATAATCAGGTTCTGTTCTGTAGACTCTGGGTTGCACTCCTACATGGAAATGCCTCTGGAGTGCATT CTGACGGAAAAAAGAAGAAAGAGATCCACAAGGGAAGAAGTGTTTAATATCCTCCAAGCCGCGTATGTCAGTAAA CCAGGGGCCAATCTTGCTAAGCAAATAGGGGCCAGCCCGTATGATGACATTCTCTACGGGGTGTTTGCACAAAGC AAGCCAGATTCTGCTGAGCCCATGAACCGATCAGCGGTCTGTGCATTCCCCCATCAAATATGTCAATGACTTCTTC AACAAGATTGTCAACAAAAACAACGTACGGTGTCTCCAGCATTTTTATGGACCCAACCACGAGCACTGTTTCAAT CAGGCTGTGGATTTATTCATGGGCCGGCTCAACCATGTACTCTTGACGTCTATCTCTACCTTCATCAAAGGTGAC CTCACCATTGCTAATCTAGGGACATCAGAAGGTCGCTTCATGCAGGTGGTGCTCTCTCGCACAGCACATTTCACC GGCTATACCCTGGTGGTCACAGGGAAGAAGATCACCAAGATTCCACTGAATGGCCTAGGCTGTGGGCATTTCCAG TCCTGCAGTCAGTGTCTCTCTGCCCCCTACTTTATACAGTGTGGCTGGTGCCACAATCGGTGTGCATTCCAAT GAATGCCCCAGCGGTACATGGACTCAAGAGATCTGTCTGCCAGCAGTTTATAAGGTTTTCCCCACTAGTGCACCC CTCGAAGGAGGAACAATGCTGACCATATGTGGCTGGGACTTTGGATTCAAGAAGAATAATAAATTTGATTTAAGG AAAACCAAAGTTCTGCTTGGCAACGAGAGCTGTACCTTGACCTTAAGCGAGAGCACGACAAATACGTTGAAATGC ACAGTTGGCCCCGCGATGAGTGAGCACTTCAATGTGTCTGTGATCGTCTCAAACAGTCGAGAGACACACAGTAC  ${\tt AGTGCGTTTTCCTATGTGGATCCTGTAATAACAAGTATTTCTCCAAGGTATGGTCCTCATGCCGGAGGCACCTTA}$  $\tt CTCACTTTGACTGGAAAATACCTCAACAGCGGCAATTCTAGACACATTTCAATCGGAGGGAAAACATGTACTTTA$ AAAAGTGTATCAGATAGCATTCTCGAATGCTACACCCCAGGCCACACCGTCTCTGCCGAGTTTCCCGTGAAATTG AAAATCGACCTGGCTGACCGAGTGACAAGCAGCTTCAGTTACGGGGAAGACCCGTTTGTCTCTGAAATCCACCCG



ACCAAATCTTTTATCAGTGGTGGAAGCACAATAACGGGGGATTGGAAAGAACCTGAATTCAGTTAGCACCCCAAAG  $\tt CTGGTAATAGAAGTGCATGACGTGGCGTGAACTACACCGTGGCGTGCCAACATCGCTCGAGTTCAGAGATCATC$ TGCTGCACCACTCCTTCCCTGCAACAGCTGGACCTGCAACTCCCCCTGAAGACCAAAGCCTTCTTCCTGCTGGAC GGGATCCTTTCCAAACACTTTGATCTCACTTATGTACATGATCCTATGTTTAAGCCTTTTGAAAAGCCAGTAATG ATCTCCATGGGCAATGAGAATGTAGTGGAAATTAAGGGAGACGATATTGACCCTGAAGCAGTTAAAGGTGAAGTG ATCGTTCAACCGGATCAGAATTTTGCAGGATTGATCATTGGTGCGGTCTCAATATCAGTGGTAGTTTTGTTAGTA TCCGGGCTCTTCCTGTGGCTGAGAAAGAGAAAGCATAAAGATCTGGGCAGTGAATTAGTTCGCTATGACGCAAGA GTACACACTCCTCATTTGGATAGGCTTGTAAGTGCCCGAAGTGTAAGCCCAACTACAGAGATGGTCTCAAATGAG TCTGTAGACTACAGAGCTACTTTTCCAGAAGACCAGTTTCCCAACTCCTCTCAGAATGGAGCCTGCAGACAAGTG CAGTATCCACTGACAGATCTGTCCCCCATCCTGACGAGTGGAGACTCTGATATATCCAGCCCATTACTACAAAAC ACTGTTCACATTGACCTCAGCGCTCTAAATCCAGAGCTGGTCCAAGCGGTGCAGCACGTAGTGATTGGACCCAGT AGCCTGATTGTGCATTTCAATGAAGTCATAGGAAGAGGGCATTTTGGCTGTGTCTATCATGGGACTTTGTTGGAC AGTGACGGAAAGAAATTCACTGTGCTGTGAAATCCTTGAATAGAATCACAGATATAGAAGAAGTCTCCCAGTTT GAAGGGTCCCCTCTGGTGGTTCTGCCCTATATGAAGCACGGAGATCTTCGCAATTTCATTCGAAACGAGACTCAT AACCCAACTGTGAAAGATCTTATAGGATTCGGTCTTCAAGTAGCCAAGGGCATGAAATATCTTGCCAGCAAAAAG TTTGTCCACAGAGACTTAGCTGCAAGAAACTGCATGTTGGATGAAAAATTCACTGTCAAGGTTGCTGATTTCGGT CTTGCCAGAGACATGTACGACAAAGAGTATTATAGCGTCCACAACAAAACGGGTGCGAAACTACCGGTGAAGTGG ATGGCTTTAGAGAGTCTGCAGACGCAAAAGTTCACCACCAAGTCAGACGTGTGGTCCTTCGGTGTGCTTCTCTGG GAGCTCATGACGAGAGGAGCCCCTCCTTATCCTGACGTGAACACATTTGATATCACTATATACCTGTTGCAAGGC AGAAGACTCTTGCAACCAGAGTACTGTCCAGACGCCTTGTATGAAGTGATGCTAAAATGCTGGCACCCCAAAGCA GAAATGCGCCCATCGTTTTCTGAACTGGTCTCCAGAATATCCTCAATCTTCTCCACTTTCATTGGCGAGCACTAT GTCCATGTGAACGCTACTTATGTGAATGTAAAATGTGTTGCTCCATATCCTTCTCTGTTGCCATCCCAAGACAAC ATTGACGGCGAAGCGAACACATGACGGATAAGAGGCCCGCCAGCCCACTTCCAAGAAACAGTTC

#### SEQ ID NO:108 Rat TRP-MET polypeptide sequence

gi|13928700|ref|NP 113705.1|

MKAPTALAPGILLLLTLAQRSHGECKEALVKSEMNVNMKYQLPNFTAETPIQNVVLHGHHIYLGATNYIYVLND KDLQKVSEFKTGPVVEHPDCFPCQDCSSKANVSGGVWKDNVNMALLVDTYYDDQLISCGSVNRGTCQRHVLPPDN AADIQSEVHCMFSPLAEEESGQCPDCVVSALGAKVLLSEKDRFINFFVGNTINSSYPPDYSLHSISVRRLKETQD GFKFLTDQSYIDVLGEFRDSYPIKYIHAFESNHFIYFLTVQKETLDAQTFHTRIIRFCSVDSGLHSYMEMPLECI LTEKRRKRSTREEVFNILQAAYVSKPGANLAKQIGASPYDDILYGVFAQSKPDSAEPMNRSAVCAFPIKYVNDFF NKIVNKNNVRCLQHFYGPNHEHCFNRTLLRNSSGCEVRSDEYRTEFTTALQAVDLFMGRLNHVLLTSISTFIKGD LTIANLGTSEGRFMQVVLSRTAHFTPHVNFLLDSHPVSPEVIVEHPSNQNGYTLVVTGKKITKIPLNGLGCGHFQ SCSQCLSAPYFIQCGWCHNRCVHSNECPSGTWTQEICLPAVYKVFPTSAPLEGGTMLTICGWDFGFKKNNKFDLR KTKVLLGNESCTLTLSESTTNTLKCTVGPAMSEHFNVSVIVSNSRETTQYSAFSYVDPVITSISPRYGPHAGGTL LTLTGKYLNSGNSRHISIGGKTCTLKSVSDSILECYTPGHTVSAEFPVKLKIDLADRVTSSFSYGEDPFVSEIHP TKSFISGGSTITGIGKNLNSVSTPKLVIEVHDVGVNYTVACQHRSSSEIICCTTPSLQQLDLQLPLKTKAFFLLD

60111616 vI